

REMARKS

The present application was filed on May 26, 2006 with claims 1 through 41. Claims 5, 18, 25, and 29 were cancelled in the Amendment and Response to Office Action dated April 28, 2008. Claims 31-33 and 35-37 were cancelled in the Amendment After Final Rejection dated April 22, 2009. Claims 42-65 were added and claims 1-4, 6-17, 19-21, 30, 34, and 38-41 were cancelled in the Amendment and Response to Office Action dated February 9, 2010. Claims 22-24, 26-28, and 42-65 are presently pending in the above-identified patent application.

In the Office Action, the Examiner rejected claims 22, 26, 52, and 59 under 35 U.S.C. §102(e) as being anticipated by Kuchi et al. (United States Patent No. 7,065,156), and rejected claims 23, 24, 27, 28, 43, 44, 45-51, 53-58, and 60-64 under 35 U.S.C. §103(a) as being unpatentable over Kuchi et al. in view of Gardner et al. (United States Publication No. 2005/0233709).

Independent Claims 22, 26, 52 and 59

Independent claims 22, 26, 52 and 59 were rejected under 35 U.S.C. §102(e) as being anticipated by Kuchi et al. Regarding claim 22, the Examiner asserts that Kuchi discloses receiving an indication of a duration to defer until a subsequent transmission (col. 4, lines 29-35, and col. 3, lines 27-37), said indication transmitted such that said indication is capable of being interpreted by a lower order receiver by diagonally loading a SIGNAL field (FIG. 1b-1c, 3a-3b; where the training symbols are phase shifted) across said plurality of transmit antennas (col. 3, lines 13-18, and col. 5, lines 38-54).

Applicants note that independent claims 52 and 59 are directed to the corresponding transmitting method and transmitter for the receiving method and receiver of independent claims 22 and 26, respectively. Thus, independent claims 22 and 26 require *receiving an indication of a duration to defer until a subsequent transmission, said indication transmitted such that said indication is capable of being interpreted by a lower order receiver by diagonally loading a SIGNAL field across said plurality of transmit antennas*. Independent claims 52 and 59 require *transmitting an indication of a duration to defer until a subsequent transmission, said indication transmitted such that said indication is capable of being interpreted by a lower order receiver by diagonally loading a SIGNAL field across said plurality of transmit antennas*.

Applicants note that the present disclosure teaches “diagonally loading” in FIGS. 4 and 6 and the associated text. As seen in FIG. 4, “*diagonal loading*” requires, for each antenna, transmitting on a particular distinct set of subcarriers while nulling the other subcarriers. Clearly, a patentee is entitled to be his own lexicographer. See, e.g., *Rohm & Haas Co. v. Dawson Chemical Co., Inc.*, 557 F. Supp 739, 217 U.S.P.Q. 515, 573 (Tex. 1983); *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 228 U.S.P.Q. 90 (Fed. Cir. 1985); and *Fonar Corp. v. Johnson & Johnson*, 821 F.2d 627, 3 U.S.P.Q.2d 1109 (Fed. Cir. 1987).

The interpretation of the term “diagonally loading” asserted by the Examiner is inconsistent with the definition provided in the specification and is not how the term would be understood by a person of ordinary skill, based on the specification. When the specification explains and defines a term used in the claims, without ambiguity or incompleteness, there is no need to search further for the meaning of the term. *Multiform Desiccants Inc. v. Medzam Ltd.*, 133 F.3d 1473, 45 U.S.P.Q.2d 1429, 1433 (Fed. Cir. 1998).

Kuchi, on the other hand, teaches to delay a signal and phase shift a signal. In particular, Kuchi teaches:

In the embodiment of FIG. 1a, transmitter 100 receives input data stream at input 102 and generates an input symbol stream at the output of CIM 104. $X(t)$ is split into two identical symbol streams, with one symbol stream $X(t)$ being input to RF circuitry 112a and phase shifter block 110. Phase shifter block 110 outputs a phased shifted version of $X(t)$ or $P_{X(t)}$. The other input symbol stream $X(t)$ is input to offset block 106. Offset block 106 causes at least a one symbol period delay in the second input symbol stream $X(t)$ being input to offset block 106 to generate an offset version of $X(t)$ or $O(t)$. The delayed input symbol stream, $O(t)$, is then input to RF circuitry 116a and phase shifter block 108. Phase shifter block 108 outputs a phase shifted version of $O(t)$ or $P_{O(t)}$. (Col. 3, lines 24-37.)

In the embodiment of FIG. 2, transmitter 200 receives input data and outputs an input symbol stream $X(t)$ at the output of CIM 204. $X(t)$ is split into two symbol streams with one symbol stream $X(t)$ being input to RF circuitry block 210 and phase shifter block 208. The output of phase shifter block 208 $P_{X(t)}$ is then input to RF circuitry 212. The other input symbol stream $X(t)$ is input to offset block 206. Offset block 206 causes an at least one symbol period delay in $X(t)$ to generate an offset version of $X(t)$ for $O(t)$. $O(t)$ is then input to RF circuitry block 214. $X(t)$ is transmitted on antenna 216 and, $P_{X(t)}$ and $O(t)$ are transmitted on antenna 218. (Col. 4, lines 24-35.)

In the embodiment of FIG. 3a, transmitter 300 receives input data and outputs an input symbol stream $X(t)$ at the output of CIM 304. $X(t)$ is split into two symbol streams with one being input to switch 324 and the other being input to offset block 306. Offset block 306 outputs a delayed version of $X(t)$, or $O(t)$. Phase shifter 326 outputs $P_{O(t)}$, which is input to switch 324. Switch 324 functions to alternate transmission bursts between antennas 316 and 318, and antennas 320 and 322, respectively. For one burst period $X(t)$ is transmitted on antenna 316 and $O(t)$ is transmitted on antenna 318. For the next period $X(t)$ is transmitted on antenna 320 and $O(t)$ is transmitted on antenna 322. The delay diversity transmission is periodically alternated between antennas 316 and 318, and antennas 320 and 322. Every other burst from a burst Y is transmitted with a second order path diversity from antennas 316 and 318 and every other burst from a burst $Y+1$ is transmitted with a second order path diversity from antennas 320 and 322.

(Col. 5, lines 38-54.)

Kuchi teaches to delay a signal and phase shift a signal. *Delaying* or *phase shifting* a signal is *not* equivalent to *diagonal loading*, as defined in the context of the present invention and as would be understood by a person of ordinary skill in the art in view of the present disclosure.

Thus, Kuchi et al., alone or in combination, do not disclose or suggest transmitting or receiving an indication of a duration to defer until a subsequent transmission, said indication transmitted such that said indication is capable of being interpreted by a lower order receiver by diagonally loading a SIGNAL field across said plurality of transmit antennas, as variously required by independent claims 22, 26, 52 and 59.

Claims 23-24, 27-28, 42-51, 53-58 and 60-65

Claims 23-24 and 42-46, claims 27-28 and 47-51, claims 53-58, and claims 60-65 are dependent on claims 22, 26, 52, and 59, respectively, and are therefore patentably distinguished over Kuchi et al. and Gardner et al., alone or in any combination, because of their dependency from independent claims 22, 26, 52, and 59 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

Conclusion

All of the pending claims, i.e., claims 22-24, 26-28, and 42-65, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kevin M. Mason". The signature is fluid and cursive, with the first name "Kevin" being more prominent.

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